

PIN18

HOSPITAL LENGTH-OF-STAY AND COSTS ASSOCIATED WITH USE AND EARLIER INITIATION OF DROTECOGIN ALFA (ACTIVATED) IN ADULT PATIENTS WITH THE HIGHEST PROPENSITY OF HAVING SEVERE SEPSIS

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OBJECTIVES: Drotrecogin alfa (activated) (DrotAA) is indicated for adults with severe sepsis (SS) at high risk of death. ICD-9-CM code 995.92 for SS became available in October 2002. The purpose of our study was to determine whether hospital length-of-stay (LOS) and costs differ for adult patients most likely to have SS, depending on whether they received DrotAA. **METHODS:** We conducted a retrospective analysis of 2002–2003 hospital discharges from the large Premier Inc Perspective Comparative Database developed for clinical and economic benchmarking. We modeled adult patients' propensity for having code 995.92 as proxy for likelihood of having SS. Among patients having the highest likelihood of SS, defined as the top 5% of propensity scores, we compared hospital LOS and costs between DrotAA recipients and non-recipients. We also compared LOS and costs stratified on the interval between evident SS and initiation of DrotAA: Same-day, Next-day, Day2+. **RESULTS:** Of 218,805 patients, 11,218 met the criterion for highest likelihood of having SS. Whereas 67.2% of these never received DrotAA, 38.3% of DrotAA recipients were Same-day, 31.4% Next-day, and 30.4% Day2+. Hospital LOS was shorter among DrotAA recipients than non-recipients overall (21.0 vs. 22.1 days; $p = 0.029$). Moreover, for DrotAA patients, hospital LOS shortened as the interval shortened (Same-day 16.6, Next-day 19.2, Day2+ 30.4 days; $p < 0.0001$). Hospital costs were higher for DrotAA recipients than non-recipients overall (\$57,834 vs. \$54,145; $p = 0.004$). However, for DrotAA patients, hospital costs were lower as the interval shortened (Same-day \$44,134; Next-day \$52,205; Day2+ \$86,669; $p < 0.0001$), consistent with LOS differences. **CONCLUSIONS:** Most patients with the highest likelihood of having SS never receive DrotAA. Hospital LOS and costs significantly decrease as the treatment interval shortens for DrotAA recipients, although DrotAA recipients have higher average hospital costs than non-recipients overall. Hospital LOS and costs might be reduced through improvements to the appropriate use of DrotAA.

INFECTION—Health Care Use & Policy Studies

PIN19

A RETROSPECTIVE EVALUATION OF THE MANAGEMENT AND OUTCOMES IN HOSPITALIZED PATIENTS WITH COMMUNITY ACQUIRED PNEUMONIA IN AN INNER-CITY HOSPITAL

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OBJECTIVES: This study evaluated the medical management of patients hospitalized with Community Acquired Pneumonia (CAP) in an inner-city hospital comprising over 90% of Medicaid and indigent patients. The goal was to identify opportunities for quality improvement. **METHODS:** A random sample of patients with a diagnosis of CAP at discharge in 2002 was selected for retrospective chart review. Data was collected based on American Thoracic Society (ATS) criteria. **RESULTS:** Medical records of 155 patients were reviewed; mortality rate was 4%.

The percentage of patients receiving the first antibiotic dose in less than eight hours was 80. Ninety-seven percent of patients had oxygenation checked within 24 hours of admission. Only 45% of patients had blood cultures performed, and 91% of these were positive. The most common antibiotic prescribed was oral levofloxacin representing 39% of all antibiotic orders. Using the ATS guidelines, 14 patients (9%) were considered to have received inappropriate antimicrobial treatment. Of these, 7 had severe cases of CAP requiring treatment in the Intensive Care Unit (ICU). The most common cause for non-compliance in the ICU was lacked of coverage for atypical microbes. The average length of stay for all patients in the study was 7.64 days (SD ± 0.327). Patients who received a antibiotic regimen which complied with guidelines, as compared to those who did not, had a shorter length of stay in the hospital (7.33 days vs 9.79 days, $p = 0.31$). **CONCLUSION:** Ongoing analysis will provide further improvement in clinical outcomes and will identify areas of focus for future research.

PIN20

COMPARISON OF HEALTH OUTCOMES AMONG SEVERE COMMUNITY-ACQUIRED PNEUMONIA PATIENTS TREATED EMPIRICALLY WITH A BETA-LACTAM PLUS A MACROLIDE VERSUS A BETA-LACTAM PLUS A FLUOROQUINOLONE

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OBJECTIVES: Contemporary community-acquired pneumonia (CAP) guidelines recommend that intensive care unit (ICU) patients empirically receive a beta-lactam plus a macrolide (BLM) or a beta-lactam plus a fluoroquinolone (BLF). This study compares the impact of the initial antibiotic choice on time to clinical stability (TTCS), time to switch therapy (TTST), length of hospital stay (LOS), and in-hospital mortality. **METHODS:** Patient demographics, laboratory and physical exam findings, empiric antibiotic therapy, and hospital course (over 200 variables in all) were extracted from the medical records of all adult CAP patients admitted to the ICUs of 5 community hospitals between 1 November 1999 and 30 April 2000. Patients were divided into two groups (BLM and BLF) based on antibiotics received within the first 24h of hospitalization. TTCS, TTST, LOS and in-hospital mortality were compared using regression models that included the outcome as the dependent variable, antibiotic therapy as the independent variable, and Pneumonia Severity of Index (PSI score) as a covariate. **RESULTS:** Overall, there were 129 ICU patients of which 34% received BLF and 13% received BLM. Groups were similar with respect to age, sex, comorbidities, PSI score, pre-admission antibiotics, shock, acute renal failure, and the need for mechanical ventilation. Compared to patients who received BLM, those who received BLF had a significantly longer (median; OR, 95%CI) TTCS (2 vs. 4 days; 1.54, 1.04–2.20), TTST (6 vs. 10 days; 1.47, 1.06–2.00), and LOS (6.5 vs. 12 days; 1.58, 1.11–2.11). In-hospital mortality was similar between patients who received BLM and BLF (13% vs. 15%; 1.17, 0.23–8.95). **CONCLUSION:** Severe CAP patients who initially received a beta-lactam plus a macrolide had a faster time to clinical stability, shorter time to switch therapy, and reduced time to hospital discharge compared to patients treated with a beta-lactam plus a fluoroquinolone.